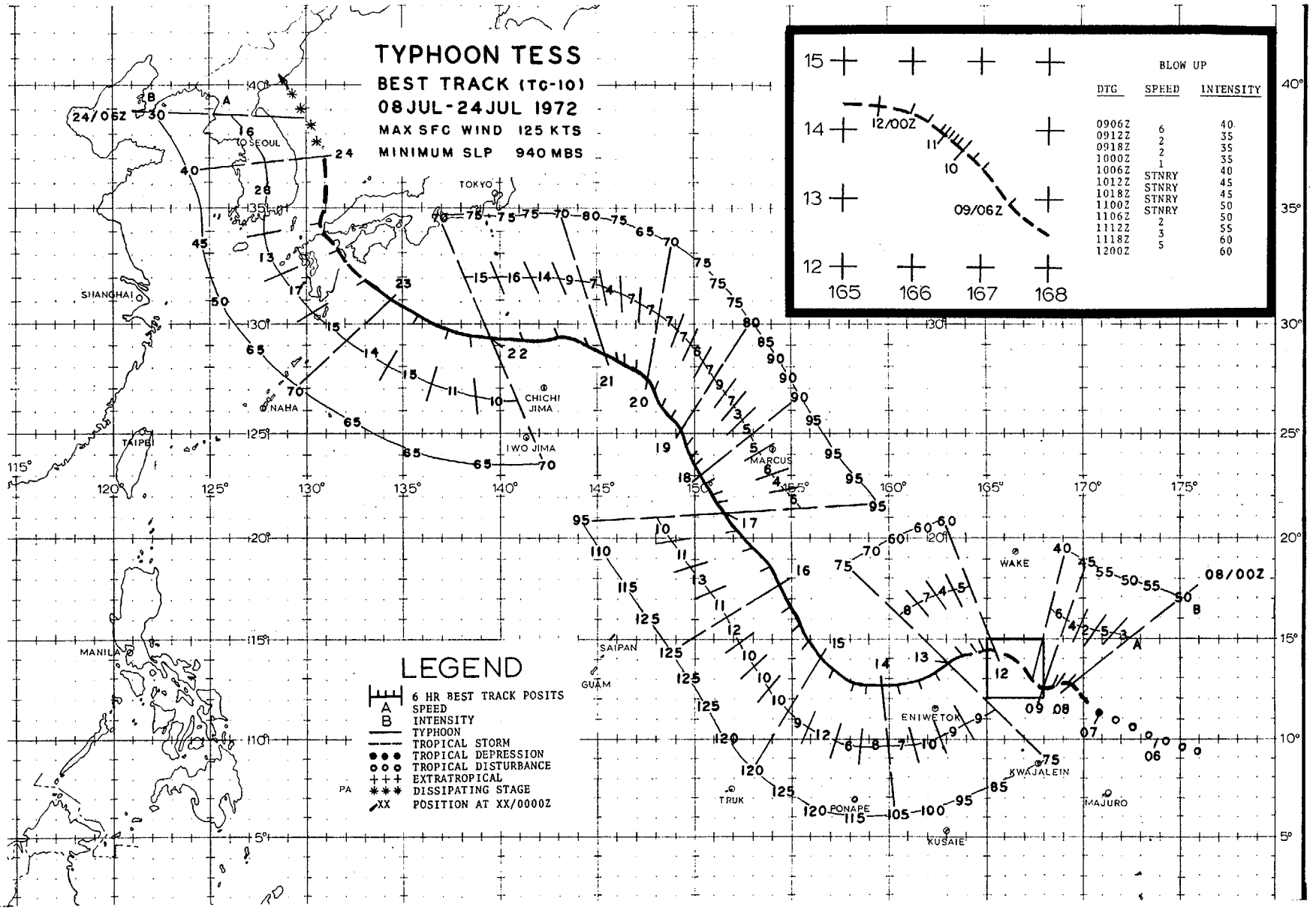
TYPHOON TESS
BEST TRACK (TC-10)
08 JUL - 24 JUL 1972
MAX SFC WIND 125 KTS
MINIMUM SLP 940 MBS
BLOW UP
DTG SPEED INTENSITY
0906Z 6 40
0912Z 2 35
0918Z 2 35
1000Z 1 35
1006Z STNRY 40
1012Z STNRY 45
1018Z STNRY 45
1100Z STNRY 50
1106Z 50
1112Z 2 55
1118Z 3 60
1200Z 5 60
12/00Z
09/06Z
08/00Z
LEGEND
6 HR BEST TRACK POSITS
A SPEED
B INTENSITY
TYPHOON
TROPICAL STORM
TROPICAL DEPRESSION
TROPICAL DISTURBANCE
EXTRATROPICAL
DISSIPATING STAGE
XX POSITION AT XX/0000Z
SEOUL
TOKYO
SHANGHAI
NAHA
TAIPEI
CHICHI JIMA
IWO JIMA
MARCUS
WAKE
SAIPAN
GUAM
MANILA
ENIWETOK
KWAJALEIN
MAJURO
TRUK
PONAPE
KUSAIE

Tess was first observed in satellite pictures on 6 July, west of the international dateline near 9°N. She was positioned at the end of a chain of developing tropical cyclones stretching to the Philippines. She was tracked by satellite for the next six days while passing north of the Marshall Islands. Intensity estimates based on satellite imagery indicated Tess probably reached tropical storm force on the 7th. Late on the 12th, reconnaissance aircraft indicated Tess had reached typhoon intensity.

Due to a building high cell north of Wake Island, Tess began to move southwest on the 13th. Steadily gaining strength (Figure 4-14), Tess described a gradual bend back to the northwest late on the 14th as she rounded the southern extension of the ridge. Her central pressure reached a minimum on the afternoon of the 15th as dropsonde measurements recorded 940 mb. Tess achieved her maximum intensity at this time with winds of 125 kt occurring near her center.

Continuing on a northwesterly course for the next five days, Tess gradually lessened in intensity as she paralleled the southwest side of a high cell 500 nm northeast of Minami Tori Shima (Marcus Island).

By the 20th, the influence of a high cell over northern Honshu caused Tess to shift to a westerly course. Now a minimal typhoon, Tess began to increase in forward speed on the 21st as she approached the Nampō Shoto, south of Japan. With the slowdown of Rita in the East China Sea, the circulation of Tess began to interact with that of Rita, about 800 nm distant (Figure 4-15).

As a Fujiwhara effect began to take place, the path of Tess was dictated by both Rita's circulation and a high cell over Honshu. These two factors caused a 14-15 kt movement and landfall on northeastern Kyushu the evening of the 23rd. Emerging into the Sea of Japan as a tropical storm, Tess moved rapidly northward and weakened to a tropical depression. She finally merged with a front south of Vladivostok late on the 24th.

Torrential rains from Tess occurred over much of Shikoku (18.94 in. at Tsurugisan Weather Station) and the Kanto, Chubu and Kinki regions of Honshu. Resultant flooding caused inundation of over 3,500 homes and over 1,600 hectares of land. Newspaper reports indicated 29 persons killed and 20 missing in the aftermath of Tess. The majority of these were swimmers lost in the 6- to 12-foot surf which battered the central Japanese coastline prior to Tess's arrival.

The center passed over Oita, Kyushu, which registered the minimum pressure in the region of 979.4 mb. Maximum sustained winds of 72 kt and peak gust of 96 kt were recorded on Shikoku at Murotomisaki and Sukumo, respectively.

Although not a record breaker, Tess paralleled Rita in terms of longevity as she narrowly missed matching Typhoon Opal's (1967) performance. A total of 66 warnings was issued on Tess, three less than during Opal's lifetime.

FIGURE 4-14. *Typhoon Tess 90 nm north of Eniwetok, 13 July 1972, 2133 GMT. (DAPP data)*

FIGURE 4-15. *Typhoon Tess (right) 400 nm south of Tokyo is centered some 700 nm east of Typhoon Rita (left) in the East China Sea, 22 July 1972, 0259 GMT. (DAPP data)*